



Administrative Report

Office of the Chief, Essex-Windsor EMS

To: Warden Tom Bain and Members of County Council

**From: Bruce Krauter
Chief, Essex-Windsor Emergency Medical Services**

Date: May 16, 2018

Subject: Essex Windsor EMS 2018 Q1 Experience Report

Report #: 2018-0516-EMS-R006-BK

Purpose

To provide Essex County Council with background and information on ambulance call response experience and activity across the City of Windsor and Essex County for the first quarter of 2018 compared to previous years.

Background

In preparation of this report call response data was researched utilizing the Interdev Technologies iMedic electronic Patient Care Record (ePCR) analytics platform. The ePCR is the document which records all relevant patient care, response and transportation data for all responses.

In 2017, all call related data, whether from the ePCR or as transmitted by the Ambulance Communication Center, has been stored electronically in the ePCR platform in "real time" or as the call progresses. This is achieved through the ePCR Data Exchange Business Proof of Concept and the use of wireless technology.

Applying these tools, in conjunction with County of Essex GIS Services, the performance of EWEMS is measured, reviewed and adjusted continually.

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Call Volume

The following chart indicates the first quarter trend of transported patients by triage acuity, or severity of illness/injury, in the first quarter of the last five (5) years;

Q1 Year	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5	Total
2014	154	1,833	5,649	1,273	948	9,857
2015	168	1,775	6,204	1474	1,099	10,720
2016	180	1,961	6,225	1,560	1,164	11,090
2017	218	1,959	6,545	1,474	1,459	11,655
2018	162	1,936	5,988	1,333	894	10,313

In review of the call volume data, the 2018 first quarter call volumes have decreased 12% compared to the 2017 first quarter volumes. Reduction in call volumes can be linked, in part, to the various alternative care and preventive measures introduced by EWEMS in the later part of 2016, discussed in greater detail below.

Pickup by Municipality

The following chart indicates the first quarter trends of municipal pickups, according to acuity level over the last five years;

Municipality	2014	2015	2016	2017	2018
Amherstburg	424	444	480	500	514
Essex	444	459	517	516	436
Kingsville	369	444	452	511	440
Lakeshore	451	512	686	629	530
LaSalle	414	478	508	530	494
Leamington	710	746	782	793	673
Pelee	6	5	6	4	6
Tecumseh	658	662	750	669	667
Windsor	6851	7454	7455	8025	7005

In review of the municipal pickups the call volume indicates a decrease in all locations with the exception of Amherstburg, with a slight increase.

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Response Time Standards Performance

The following chart indicates the 2018 first quarter performance of the Response Time Standard Plan, as compared to the 2017 actual performance;

CTAS	Time Min.	Target	2017 Actual	2018 Q1
Sudden Cardiac Arrest	6	55%	59%	58%
CTAS 1	8	75%	77%	76%
CTAS 2	10	90%	85%	83%
CTAS 3	12	90%	87%	86%
CTAS 4	14	90%	91%	89%
CTAS 5	14	90%	90%	90%

The 2018 Q1 performance is consistent with the performance of the 2017 annual actual.

Vulnerable Patient Navigator Performance

This section speaks to the overall performance of the Vulnerable Patient Navigator (VPN) Program for the 2017 year. The VPN program is a multi-faceted program in which paramedics complete home visits, remotely monitor vital signs and facilitate community housing visits for those patients or residential buildings who utilize the use of EMS services frequently.

Home visits

As a result of home visits and patient enrollment into the VPN program the following performance metrics are reported;

- 911 activations decreased 11% in 2017 compared to 2016
- 911 activations from enrolled patients decreased 128% in 2017 compared to 2016
- Enrolled patient satisfaction rate of 90% for the VPN program

Remote Monitoring, Community Paramedic Patient Remote Monitoring (CPRPM)

Remote monitoring is composed of electronic wireless devices being installed in patient homes and vital signs are monitored three times daily via smart phone or computer by the VPN paramedics, primary care provider and family members. The vital signs monitored are weight, blood pressure, pulse rate and blood sugar. This program is a research project for and funded by Canada Health Infoway and the Government of Canada. It should be noted that this project has been extended for another year.

As a result of the CPRPM project (Appendix I) the following performance metrics are reported;

- 911 call reduction of enrolled patients is 26%
- Emergency Department visit reduction of enrolled patients is 40%
- Transport reduction rate of enrolled patients is 14%

These metrics are comparable or higher than the other participant averages. It should be noted that there are twelve participating services and seven were early adopters. Those early adopters are;

- Essex Windsor EMS
- Grey County
- Renfrew County
- Peterborough
- Guelph
- Hastings County

Community Housing VPN Health Promotion Clinic

The EWEMS VPN program has been partners with McMaster University for approximately a year in various research projects. The main project is the Community Housing Health Promotion Clinic, otherwise known as CP@clinics.

CP@clinic is a drop-in community-based health promotion program in subsidized seniors' apartment buildings, based on the CP@clinic randomized control trial. CP@clinic focuses on the prevention of cardiovascular disease, diabetes, and falls by providing assessments and health education, linking participants to community resources, and reporting results to the participant's family physician. CP@clinic is being evaluated by the Department of Family Medicine at McMaster University.

In the last twelve months VPN have attended five locations, namely;

- 2455 Rivard, Windsor
- 255 Riverside Drive East, Windsor
- 140 Bridge Avenue, Windsor
- 120 Oak Street, Windsor
- 24 Russell, Leamington

Each of these locations meet the criteria of the research project.

The clinics are comprised of VPN visits to the locations, once weekly for a four hour period. During the visit the VPN check blood glucose levels, blood pressure, pulse rate, cardiovascular education, fall risk assessment and general health promotion discussions. The objective of these clinics is to reduce repeat usage of 911 and emergency department visits. Early indications are that usage of 911 to those addresses has decreased slightly.

Offload Delays

The following chart indicates the first quarter trends of hospital offload delays (average in minutes), by site over the last five years;

Hospital	2014	2015	2016	2017	2018
WRH Met	20	21	26	32	38
WRH OC	21	28	33	42	56
Erie Shores Health Care	11	17	17	29	26

In review of the hospital offload trends, all continue to indicate an increase in minutes, with the exception of Erie Shores Health Care, which indicates a slight decrease. Concern must be given to the increase of both Windsor Regional Sites and in particular the Ouellette Site.

It should be noted that the MOHLTC has continued the Dedicated Offload Nursing Program (DONP) funding for the 2018/2019 fiscal year. This funding will secure the staffing of one nurse at both WRH sites with the objective to offload ambulance patients in an expedient and effective manner. EWEMS, WRH and the ESC LHIN continue to meet and discuss strategies to improve the offload delay occurrences.

Essex Windsor EMS Service Enhancements

The 2018, Essex Windsor EMS Budget incorporated a service enhancement of full time and part time paramedics. In February 2018, EWEMS began phase one of recruitment with the onboarding of twenty two (22) part time paramedics. Phase two began in May 2018, with the onboarding of another nineteen (19) part time paramedics. Phase three will see the addition of fifteen full time paramedic positions, with a commencement date of May 14, 2018.

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The recruitment process allows EWEMS to strategically and systematically fulfill the enhancement process. The service enhancement provided for an additional ambulance at the Dougall Station, enhanced Jefferson base to three (3) 24/7 ambulances and a 24/7 early response unit to the St. Joachim/Lakeshore area. It is anticipated that with the placement of the enhancements, response times will decrease, while resources throughout the region will be available in their respective locations, improving resource utilization.

Discussion

The first quarter of 2018 has been a busy quarter for EWEMS. As reported call volumes have decreased compared to previous first quarter experiences. Caution should be given that this metric is only one component of the EMS service. Response times have remained similar and offload delays continue to add pressure to the system.

The Vulnerable Patient Navigator program has realized very positive and encouraging results along with receiving very positive acceptance amongst those patients' enrolled, family members, care providers and stakeholders. The experience of the VPN program is a definite asset to the entire area of Essex Windsor and to the service EWEMS provides.

As the EWEMS service enhancements are placed into action in May, we anticipate there to be improvements realized in the areas of resource utilization and response times. EWEMS looks forward to presenting the findings in the Q2 EWEMS experience report in July, 2018.

Recommendation

The foregoing is provided for information.

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Respectfully Submitted

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Originally Signed by

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Concurred With,

Robert Maisonville

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Appendix No.	Title of Appendix
I	CPRPM Benefits Evaluation 2018